

What is claimed is:

1. An image intensifier tube comprising a housing which holds a photocathode and a screen, wherein a microchannel plate is supported in a recess in an interior surface of a collar which is also held in the housing.

2. The image intensifier of claim 1 wherein the collar is comprised of an ^Aannularly shaped base and a first cylindrical member disposed perpendicular to the base having interior and exterior surfaces, wherein the recess for holding the microchannel plate is in the interior surface of the cylindrical member.

3. The image intensifier of claim 3 wherein the recess is near the end of the cylindrical member away from the base.

^{at AL} 4. The image intensifier of claim 2 wherein the collar is supported in the housing by at least a peripheral retention member.

³ 5. The image intensifier of claim ² 4 wherein the peripheral retention member has,

a platform on which the base of the collar is secured,

a second cylindrical member which is perpendicular to the platform and concentric with the first cylindrical member of the collar and

an annular flange at the end of the second cylindrical member which extends in a direction away from the platform.

6. The image intensifier of claim 3 wherein the peripheral retention member is secured to the tube housing by the annular flange.

7. The image intensifier of claim 3 wherein the base of the collar is welded to the platform of the peripheral retention member.

8. The image intensifier of claim 3 wherein the base of the collar is secured to the platform of the peripheral retention member by locking tabs.

9. The image intensifier of claim 2 wherein the collar is further supported in the housing by an output contact support member located near the periphery of the microchannel plate on which the bottom of the microchannel plate rests.

10. The image intensifier of claim 7 wherein the output contact support member has a first surface parallel to the

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microchannel plate on which the bottom of the microchannel plate rests, a second portion perpendicular to the first surface which extends in a direction away from the microchannel plate, and a third portion parallel to the first surface which extends towards the outside of the tube.

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~~11~~. The image intensifier of claim ~~10~~⁸ wherein there is a ceramic ring between the flange of the peripheral retention member and the third portion of the output contact support member, which forms part of the tube housing.

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